

Rabbit Anti-INPP4B [EP328]: RM0377

Intended Use: For Research Use Only

Description: The type II inositol 3,4-bisphosphate 4-phosphatase (INPP4B) is a recently identified tumor suppressor modulating the PI3K/Akt signaling pathway. Mechanistically, INPP4B hydrolyzes phosphatidylinositol 3,4-bisphosphate (PI(3,4)P2) to regulate phosphorylation and cytoplasmic activation of Akt. Loss or silenced INPP4B expression was associated with increased activated Akt and anchorage-independent growth. INPP4B expression has been evaluated in breast, ovarian and prostate cancers. Immunohistochemical studies using tumor tissues and tissue microarrays demonstrated significantly reduced expression in cancer cells compared with benign tissue. In gene expression studies, INPP4B RNA levels were decreased in 8% of clinically localized, and 47% of metastatic disease. In breast cancer, loss of INPP4B occurs most frequently in aggressive hormone receptor-negative basal-like breast carcinomas, with higher tumor grade and size. Diminished INPP4B levels are correlated with poor outcomes and reduced recurrence-free survival.

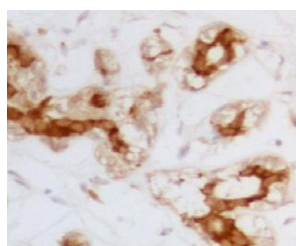
Specifications

Clone: EP328
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human
 Localization: Cytoplasm
 Formulation: Antibody in PBS pH7.5, containing 0.2% BSA and <0.1% sodium azide (NaN3)
 Storage: Store at 2°- 8°C
 Applications: IHC
 Package:

Description	Catalog No.	Size
INPP4B Concentrated	RM0377	1 ml

IHC Procedure

Positive Control: Breast
 Concentrated Dilution: 50-200
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual
 * Result should be confirmed by an established diagnostic procedure.



FFPE human breast tissue stained with anti-INPP4B using DAB

References:

1. INPP4B is highly expressed in prostate intermediate cells and its loss of expression in prostate carcinoma predicts for recurrence and poor long term survival. Rynkiewicz NK, et al. Prostate. Jan;75(1):92-102, 2015.
2. Epigenetic inactivation of inositol polyphosphate 4-phosphatase B (INPP4B), a regulator of PI3K/AKT signaling pathway in EBV-associated nasopharyngeal carcinoma. Yuen JW, et al. PLoS One. Aug 15;9(8), 2014.
3. Role of the inositol polyphosphate-4-phosphatase type II Inpp4b in the generation of ovarian teratomas. Balakrishnan A, et al. Dev Biol. Jan 1;373(1):118-29, 2013.